

3591

Book "K"

4-879

BOOK 3591

# FIELD NOTES

OF THE SURVEY OF

Part of the

Subdivision lines of

TOWNSHIP 5 SOUTH, RANGE 28 EAST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

William H. Thorn,

U.S. Cadastral Engineer,

In the capacity of U. S. Surveyor, under Special Instructions dated May 12, 1921, issued by the United States Surveyor General to govern surveys included in Group No. 111, which were approved by the Commissioner of the General Land Office, May 17, 1921, and Assignment Instructions dated Nov. 17, 1920.

Survey commenced July 3, 1921

Survey completed July 6, 1921

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1A

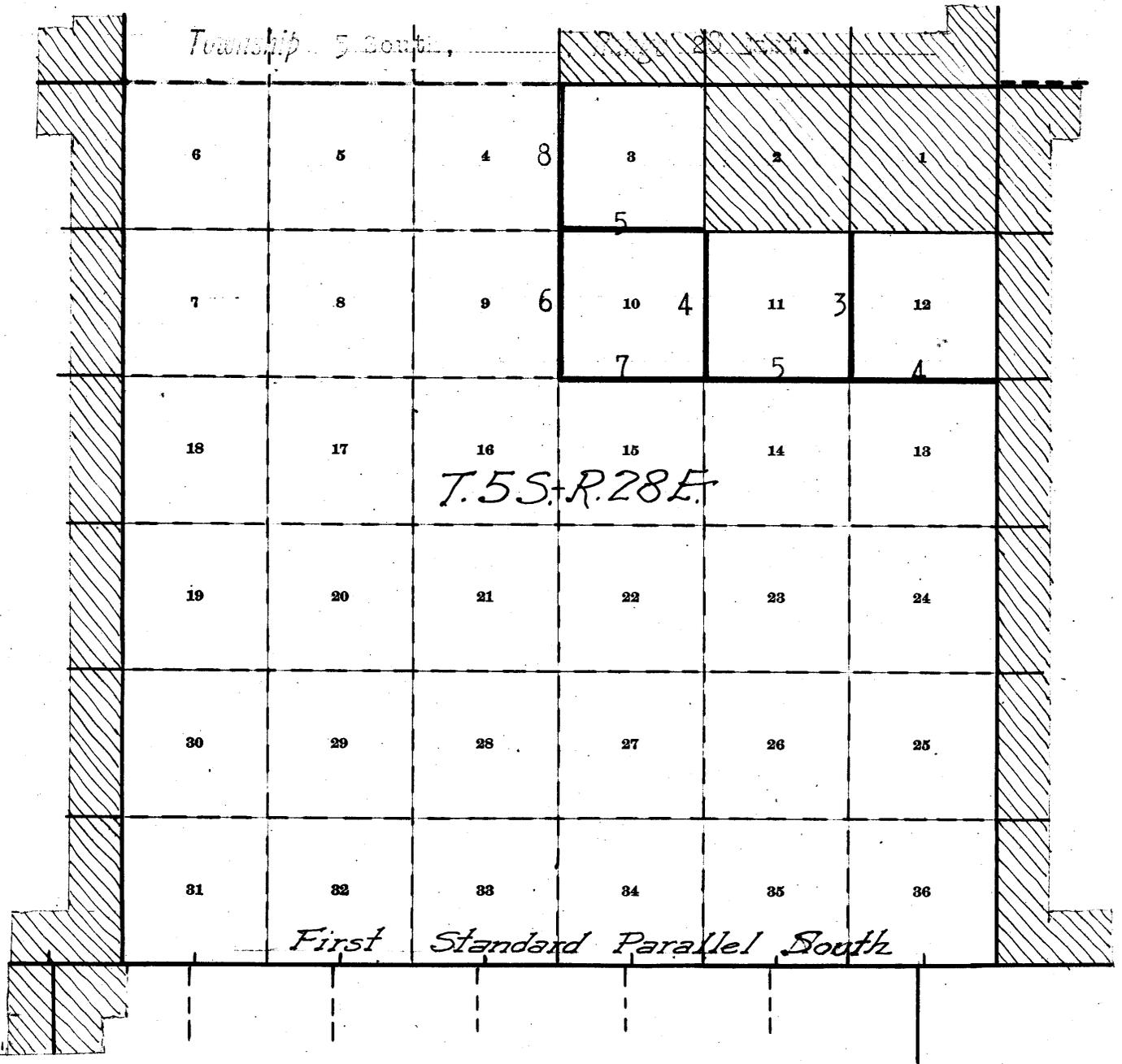
3591

Book "K"

Group 111 - - - Arizona.

BOOK 3591

# INDEX DIAGRAM.



- Lines surveyed under this group.
- Lines resurveyed under this group.
- Accepted surveys.
- - - - Unsurveyed.
-  Areas surveyed as per accepted plats on file.

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DATE DIAGRAM

Book "K"

Group 111 - - - - - Arizona.

Township 5 South, Range 28 East.

6	5	4	7-5-21	3	2	1
				7-3-21		
7	8	9	7-6-21	10	11	12
				7-4-21	7-5-21	
				7-6-21	7-4-21	7-4-21
18	17	16		15	14	13
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31	32	33		34	35	36

Surveys executed by William H. Thorn, U.S. Cadastral Engineer, on dates shown on above diagram.

Chains.

Surveys hereinafter described were executed by William H. Thorn, U. S. Cadastral Engineer, on dates shown on diagram on page 1 hereof, using Young and Sons light mountain transit No. 8592. The instrument is equipped with Smith Solar attachment, and full vertical circle. Unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

I examine the adjustment of the instrument and correct all errors; then, to test the solar apparatus, by comparing its indications, resulting from observations made during a.m. and p.m. hours with a meridian established by Polaris observation, I proceed as follows:

June 26, 1921: In camp at Garfield, in the N.  $\frac{1}{2}$  of sec. 33, T. 3 S., R. 29 E., Gila and Salt River Base and Meridian, Arizona, in lat.  $33^{\circ}7\frac{1}{2}'$  N.; long.  $109^{\circ}21'$  W. at 9h. 0m. a. m., l. m. t., using the meridian established as described in Book "J," I set off  $33^{\circ}7\frac{1}{2}'$  N., on the lat. arc;  $23^{\circ}22\frac{1}{2}'$  N. on the decl. arc, and determine a meridian with the solar which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, I observe the sun on the meridian; the resulting reading of the decl. arc is  $23^{\circ}22'$  N., which agrees with the computed decl. of the sun.

At 3h. 0m., p. m., l. m. t., with the lat. arc unchanged, I set off  $23^{\circ}22'$  N. on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made during the usual hours of solar work come within  $1'30''$  of the true meridian, I conclude that the adjustment of the instrument is satisfactory.

Unless otherwise specified, all measurements are made with a Lufkin steel tape 5 chs. in length, compared with a Chesterman standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined with clinometer, and the slope measurements properly reduced to true horizontal distances.

Survey of part of Subdivision lines of T. 5 S., R. 28 E.

3.

Chains.

The subdivision lines bounding secs. 1 and 2 of T. 5 S., R. 28 E. were surveyed in 1913, by William B. Kimmel, U.S.S., and no retracement or resurvey of such lines, is of record. The following notes describe the survey of subdivision lines bounding secs. 3, 10, 11 and 12. The remainder of the township is extremely rough and mountainous, without water, roads, trails or settlers; therefore, the cost and difficulty of surveying any more of the subdivision lines at this season was considered prohibitive.

The cor. of secs. 1, 2, 11 and 12, is an iron post, 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by a mound of stone, W. of cor.

No bearing trees.

Thence,

S. 0° 1' E., bet. secs. 11 and 12.

Over mountainous land, thru. very scattering timber and scattering undergrowth.

Ascend 21 ft., over N. slope.

0.95 Ridge, brs. E. and W. near E. end of same.

Descend 548 ft., over S. and SE. slopes.

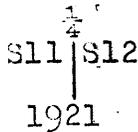
14.88 Trail, brs. E. and W.

22.72 Same trail, brs. E. and W. From this point, McBride's house brs. West 15 chs. dist.

26.67 Center of bottom of Tro Jollia canyon, 3 chs. wide, course N. 80° E.

Ascend 540 ft., over steep N. slope, to

40.90 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, supported by a mound of stone, for 1/4 sec. cor., marked on brass cap;



and raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Ascend 37 ft., over NE. slope.

45.46 Ridge, brs. S. 60° W. and S. 30° E.

Descend 23 ft., over SE. slope.

50.45 Head of gulch, course S. E.

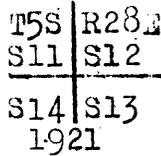
Ascend 130 ft., over NE. slope.

68.29 Long spur, slopes S. 70° E.

Descend 34 ft., over SE. slope.

78.27 Ascend 10 ft., over NE. slope, to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 18 ins. in the ground to bed rock, supported by a mound of stone, for cor. of secs. 11, 12, 13 and 14, marked on brass cap,



and raise a mound of stone, 4 ft. base, 3 ft. high; W. of cor.

Land; mountainous.

Soil, rocky, 4th rate.

Timber, very scattering juniper, cedar, pine, sycamore and cottonwood.

Undergrowth, scattering black brush, buck brush, scrub mesquite, catclaw and cacti.

Fair grass.

Part of the  
Subdivision lines of Township 5 South, Range 28 East.

Chains.

- East, on a random line, bet. secs. 12 and 13.  
40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
80.24 Fall 10 lks. S. of the cor. of secs. 7, 12, 13 and 18, on the  
E. bdy. of the Tp., established by William B. Kimmel, U.S.  
S. in 1913, which is an iron post, 3 ins. in diam.,  
projecting 12 ins. above the ground, firmly set, prop-  
erly marked on brass cap, and witnessed by a mound of  
stone, W. of cor.  
No bearing trees.  
Thence,  
S.  $89^{\circ}56'$  W., on a true line, bet. secs. 12 and 13.  
Over mountainous land, thru. very scattering timber and  
scattering undergrowth.  
Ascend 640 ft., over NE. slope.  
23.90 Spur, slopes SE.  
Descend 360 ft., over SW. slope.  
38.00 Bottom of canyon, course S.  $15^{\circ}$  E.  
Ascend 75 ft., over SE. slope, to  
40.12 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in  
the ground to bed rock, supported by a mound of stone  
for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 12  
S 13  
1921

- and raise a mound of stone, 4 ft. base, 3 ft. high, N. of  
cor.  
Ascend 217 ft., over SE. slope.  
45.90 Trail, brs. NW and SE.  
48.35 Spur, slopes S.  
Descend 88 ft., over SW. slope.  
59.26 Bottom of canyon, course S.  $45^{\circ}$  E.  
Ascend 330 ft., over NE. slope, to  
80.24 The cor. of secs. 11, 12, 13 and 14.  
Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, very scattering juniper and pine.  
Undergrowth, scattering black brush, catclaw, scrub mes-  
quite and cacti.  
Fair grass.

- The cor. of secs. 2, 3, 10 and 11, is an iron post, 2 ins.  
in diam., projecting 12 ins. above ground, firmly set,  
properly marked on brass cap, and witnessed by four  
properly marked bearing trees, one each NE., SE., SW. and  
NW. of post.  
Thence,  
S.  $0^{\circ}1'$  E., bet. secs. 10 and 11.  
Over mountainous land, thru. very scattering timber and  
scattering undergrowth.  
Ascend 210 ft., over N. slope.  
13.98 Ridge, brs. N.  $70^{\circ}$  E. and S.  $70^{\circ}$  W. At about 7 chs. W., this  
ridge turns to NW.  
Descend 538 ft., over S. slope.  
31.58 Center of bottom of Tro Jollia Canyon, 3 chs. wide, course  
E.  
Ascend 266 ft., over N. slope, to  $\frac{1}{4}$  sec. cor.  
33.00 Trail, brs. E. and W.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,  
supported by a mound of stone, for  $\frac{1}{4}$  sec. cor., marked  
on brass cap,

$\frac{1}{4}$   
S10 | S11

1921

Part of Subdivision lines of Township 5 South, Range 28 East. 5

Chains.

and raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

50.18 Ascend 270 ft. over N. slope.

Spur, slopes NE.

Descend 215 ft., over SE. slope.

62.63 Canyon, course N. 50° E.

Ascend 337 ft., over NW. slope, to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, marked on brass cap,

T5S	R28E
S10	S11
S15	S14
1921	

and raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, very scattering juniper and pine.

Undergrowth, scattering black brush, catclaw, scrub mesquite, and cacti.

Fair grass.

40.00 East, on a random line, bet. secs. 11 and 14.

Set temp.  $\frac{1}{4}$  sec. cor.

80.20 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 11, 12, 13 and 14.

Thence,

S. 89° 58' W., on a true line, bet. secs. 11 and 14.

Over mountainous land, thru. very scattering timber and scattering undergrowth.

Ascend 74 ft., over NE. slope.

6.95 Spur, slopes SE.

Descend 127 ft., over SW. slope.

19.28 Head of canyon, course S. 15° E.

Ascend 247 ft., over SE. slope, to

40.10 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$	S 11
	S 14
1921	

and raise a mound of stone, 4 ft. base, 3 ft. high, N. of cor.

46.83 Ascend 32 ft., over SE. slope.

Ridge, brs. N. 55° E. and S. 55° W.

Descend 136 ft. over NW. slope.

59.45 Canyon, course N. 20° E.

Ascend 300 ft., over E. slope.

75.70 Spur, slopes N. 45° E.

Descend 10 ft., over NW. slope, to

80.20 The cor. of secs. 10, 11, 14 and 15.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, very scattering juniper and pine.

Undergrowth, scattering black brush, catclaw, scrub mesquite, and cacti.

Fair grass.

From the cor. of secs. 2, 3, 10 and 11,

West, on a true line, bet. secs. 3 and 10.

Over mountainous land, thru. very scattering timber and scattering undergrowth.

6. Part of Subdivision lines of Township 5 South, Range 28 East.  
chains.

- 8.30 Descend 266 ft., over E. and NW. slopes.  
Trail, brs. NE. and SW.  
11.79 Canyon, course N. 35° E.  
Ascend 125 ft., over SE. slope.  
19.09 Point of spur, slopes SE.  
Descend 25 ft., over SW. slope.  
24.68 Same canyon, course S. 80° E.  
Ascend 320 ft., over steep NE. slope, to  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in  
the ground to bed rock, supported by a mound of stone,  
for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 3  
S 10  
1921

- and raise a mound of stone, 5 ft. base, 3 ft. high, N.  
of cor. This cor. is at foot of cliff, 20 ft. high,  
bearing NW. and SE., facing NE.  
64.73 Ascend 235 ft., over NE. slope.  
Ridge, brs. N. 60° W. and S. 60° E.  
Descend 40 ft., over S. slope, to  
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in  
the ground to bed rock, supported by a mound of stone,  
for cor. of secs. 3, 4, 9 and 10, marked on brass cap,

T5S | R28E  
S 4 | S 3  
S 9 | S 10  
1921

from which,  
A cedar, 8 ins. in diam., brs. N. 25° W., 103 lks.  
dist., marked T5S R28E S4 BT.  
No other bearing trees within limits; raise a mound of  
stone, 5 ft. base, 3 ft. high, W. of cor.  
Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, very scattering juniper and pine.  
Undergrowth, scattering black brush, catclaw, scrub mes-  
quite and cacti.  
Fair grass.

- S. 0° 2' E., bet. secs. 9 and 10.  
Over mountainous land, thru. very scattering timber and  
scattering undergrowth.  
9.02 Descend 291 ft., over S. slope.  
Center of bottom of Tro Jollia Canyon, 50 lks. wide, course  
S. 70° E.  
25.86 Ascend 270 ft., over NE. slope.  
Long spur, slopes S. 80° E. near E. end of same.  
40.00 Descend 334 ft., over S. slope, to  
Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,  
supported by a mound of stone, for  $\frac{1}{4}$  sec. cor., marked  
on brass cap,

$\frac{1}{4}$   
S 9 | S 10  
1921

- from which,  
A black jack oak, 16 ins. in diam., brs. N. 60° E.,  
34 lks. dist., marked  $\frac{1}{4}$  S 10 BT.  
A black jack oak, 10 ins. in diam., brs. N. 9° W.,  
10 lks. dist., marked  $\frac{1}{4}$  S 9 BT.  
40.50 Descend slightly over S. slope.  
Canyon, course E.

Part of Subdivision lines of Township 5 South, Range 28 East.

Chains.

- Ascend 79 ft. over NE slope.
- 46.47 Point of spur, slopes E.
- Descend 80 ft., over SE slope, to
- 59.06 NW edge of bottom of canyon brs. N.10°E. and S.10°W. Thence across bottom of canyon, course N.10°E.
- Ascend 74 ft., to
- 68.00 SE edge of bottom of canyon; bears N.10°E. and S.10°W. Leave bottom of canyon.
- Ascend 160 ft., over NW slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 18 ins. in the ground to bed rock, supported by a mound of stone, for cor. of secs. 9, 10, 15 and 16, marked on brass cap,

T5S	R28E
S 9	S10
S16	S15
1921	

and raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor.

Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, scattering juniper, cedar, pine, sycamore, and cottonwood.  
 Undergrowth, scattering black brush, buck brush, scrub mesquite, catclaw and cacti.  
 Fair grass.

- East, on a random line, bet. secs. 10 and 15.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 80.00 Intersect N. and S. line, 29 lks. N. of the cor. of secs. 10, 11, 14 and 15.
- Thence,
- N. 89° 48' W., on a true line, bet. secs. 10 and 15.
- Over mountainous land, thru. very scattering timber and scattering undergrowth.
- Descend 160 ft., over NW slope.
- 7.00 Head of canyon, course N. 15° E.
- Ascend 505 ft. over E. slope.
- 24.58 Long spur, slopes NE.
- Descend 50 ft., over NW and N. slopes to
- 37.05 Point of spur, slopes N. 40° W.
- Descend 34 ft., over W. slope, to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$ S 10
S 15
1921

from which,

- A cedar, 10 ins. in diam., brs. N. 50° E., 84 lks. dist., marked  $\frac{1}{4}$  S 10 BT.
- A cedar, 6 ins. in diam., brs. S. 11° W., 27 lks. dist., marked  $\frac{1}{4}$  S 15 BT.
- Descend 712 ft., over W. slope, to
- 57.27 Canyon, course N. heads about 40 chs. S.
- Ascend 497 ft., over E. slope.
- 71.70 Spur, slopes N.
- Descend 375 ft., over NW slope, to
- 80.00 The cor. of secs. 9, 10, 15 and 16.
- Land, mountainous.
- Soil, rocky, 4th rate.
- Timber, very scattering juniper, cedar, pine, sycamore and cottonwood.
- Undergrowth, scattering black brush, scrub mesquite, buck brush, catclaw and cacti.
- Fair grass.

8 part of subdivision lines of Township 5 South, Range 28 East.

Chains.

- From the cor. of secs. 3, 4, 9 and 10,  
 N.  $0^{\circ}9'E.$ , on a random line, bet. secs. 3 and 4.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 80.00 Fall 21 lks. E. of the cor. of secs. 3, 4, 33 and 34, on the  
 N. bdy. of the Tp., established by William B. Kimmel, in 1913.  
 which is an iron post 3 ins. in diam., projecting 12  
 ins. above ground, firmly set, properly marked on brass  
 cap, and witnessed by a mound of stone, W. of cor.  
 No bearing trees.  
 Thence,  
 South, on a true line, bet. secs. 3 and 4.  
 Over mountainous land, thru. very scattering timber and  
 scattering undergrowth.  
 Descend 160 ft., over SE. slope.  
 8.39 Gulch, course S.  $75^{\circ}E.$   
 Ascend 113 ft., over NE. slope.  
 14.31 Point of spur, slopes E.  
 Descend 440 ft., over SE. slope.  
 33.56 Center of wash, 2 chs. wide, in bottom of canyon, course  
 N.  $45^{\circ}E.$   
 Ascend 182 ft., over N. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the  
 ground to bed rock, supported by a mound of stone, for  
 $\frac{1}{4}$  sec. cor., marked on brass cap,
- $\frac{1}{4}$   
 S 4 | S 3  
 1921
- and raise a mound of stone, 5 ft. base, 3 ft. high, W.  
 of cor.  
 Ascend 45 ft., over N. slope.  
 42.13 Ridge, brs. N.  $50^{\circ}E.$  and S.  $50^{\circ}W.$   
 Descend 225 ft., over SE. slope.  
 50.12 Canyon, course N.  $75^{\circ}E.$   
 Ascend 357 ft., over NE. slope.  
 71.23 Ridge, brs. N.  $60^{\circ}W.$  and S.  $60^{\circ}E.$   
 Descend 125 ft., over S. slope, to  
 80.00 The cor. of secs. 3, 4, 9 and 10.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, very scattering juniper and pine.  
 Undergrowth, scattering black brush, catclaw, scrub mes-  
 quire and cacti.  
 Fair grass.

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Final Field Test of Transit No. 8592.

July 10, 1921: Using the meridian established at camp at  
 the town of Garfield in N.  $\frac{1}{2}$  of sec. 33, T. 3 S., R. 29 E.  
 Gila and Salt River Base and Meridian, Arizona, in lat.  
 $33^{\circ}7\frac{1}{2}'N.$ , long.  $109^{\circ}21'W.$ , at 9h. 0m. a.m., l.m.t., I  
 set off  $33^{\circ}7\frac{1}{2}'N.$  on the lat. arc;  $22^{\circ}16'N.$  on the decl.  
 arc, and determine a meridian with the solar, which  
 agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, I observe  
 the sun on the meridian; the resulting reading of  
 the decl. arc is  $22^{\circ}14\frac{1}{2}'N.$ , which agrees with the com-  
 puted decl. of the sun.

At 3h. 0m., p.m., l.m.t., with the lat. arc unchanged, I set  
 off  $22^{\circ}14'N.$  on the decl. arc, and determine a meridian  
 with the solar, which agrees with the true meridian.

From the results obtained by the above described observa-  
 tions, it is evident that the instrument is in satisfac-  
 tory adjustment,  
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Boundaries of that part of T. 5 S., R. 28 E. surveyed under Group No. 111 (secs. 3, 10, 11 and 12)

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
Subdivisional boundary	S. 89° 56' W.	80.24		.09		80.24
	S. 89° 58' W.	80.20		.05		80.20
	N. 89° 48' W.	80.00	.28			80.00
	N. 0° 2' W.	80.00	80.00			.05
	North,	80.00	80.00			
North boundary,	East,	80.00			80.00	
Subdivisional boundary,	S. 0° 10' W.	80.01		80.01		.23
	East,	160.00			160.00	
East boundary,	South,	80.00		80.00		
Convergency,					.05	
Totals,			160.28	160.15	240.05	240.72
			160.15			240.05
Error in latitude,			0.13			
Error in departure,					0.67	

GENERAL DESCRIPTION.

This township is situated in Graham and Greenlee counties, Arizona, about 7 miles southwest from Clifton, the County seat of Greenlee county, and about 14 miles northeast from Safford, the County seat of Graham county. The line between the two counties bearing NW. and SE., crosses the N. bdy. of the Tp. about midpoint thereof, and crosses the east boundary about two miles N. from the SE. cor. of the Tp.

The surface is mountainous, and the soil is rocky, 4th rate.

The drainage of secs. 3, 10, 11 and 12 is east into Eagle Creek.

The timber in said sections, consisting of juniper, cedar, and pine is very scattering, except along the bottoms of the canyons where the same varieties occur in a thicker growth with the addition of sycamore and cottonwood.

A scattering undergrowth of black brush, buck brush, scrub mesquite, catclaw and cacti is prevalent throughout said secs. There is no permanent running water in any of the water courses in said secs., and there are no springs. The Gila River passes thru. the unsurveyed part of the Tp. near the SE. cor., and Eagle Creek passes thru. the previously surveyed part near the NE. cor.

The only settler in secs. 3, 10, 11 and 12 is McBride in sec. 11, and the only improvements thereon are a goat corral in sec. 3 and McBride's house in sec. 11.

There is no evidence of valuable mineral deposits.

There is a fair growth of grass throughout said sections, which gives a fair grazing value to the land, which otherwise is apparently of little value.



CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER.

William H. Thorn, U.S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 111, Arizona, bearing date of the 12th day of May, 1921, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the

Subdivision lines of TOWNSHIP 5 SOUTH, RANGE 28 EAST.

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes and by diagram on page 1 hereof as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U.S. Surveyor General, for Group 111, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place: Phoenix Arizona Date: June 5 1923 U.S. Cadastral Engineer. APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, JUN 7 1923.

The foregoing field notes of the survey of part of the subdivision lines of TOWNSHIP 5 SOUTH, RANGE 28 EAST.

of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by William H. Thorn, U.S. Cadastral Engineer, under his special instructions dated May 12, 1921, for Group 111, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U.S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

U.S. Surveyor General.